Data Sheet (Cat.No.TMPY-02334)

TargetMol

ULBP-2 Protein, Human, Recombinant (hFc)

General Information

Synonyms:	N2DL2;ALCAN-alpha;ALCAN-α;UNQ463 / PRO791;NKG2DL2;RAET1H;UL16 binding protein 2
Protein Construction:	Gly26-Ser216
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q9BZM5
Molecular Weight:	48.40 kDa (Predicted); 55-65 kDa (Due to glycosylation)

QC Testing

Biological Activity:	Human ULBP2, hFc Tag captured on CM5 Chip via Protein A can bind Human NKG2D, His Tag with an affinity constant of 62.42 nM as determined in SPR assay (Biacore T200).
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

ULBPs activate multiple signaling pathways in primary NK cells, resulting in the production of cytokines and chemokines. Binding of ULBPs ligands to NKG2D induces calcium mobilization and activation of the JAK2, STAT5, ERK and PI3K kinase/Akt signal transduction pathway, mediating natural killer cell cytotoxicity.

Reference

Cosman D. et al., 2001,Immunity 14:123-133.
Cerwenka A., et al., 2003, Tissue Antigens 61:335-343.
Chang,Y.T. et al., 2011, PLoS One. 6 (5):e20029.